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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,258	06/21/2006	Peter Wasserscheid	DV/4-33285A	7678
1095 7590 06/18/2009				
NOVARTIS				
CORPORATE INTELLECTUAL PROPERTY				
ONE HEALTH PLAZA 104/3				
EAST HANOVER, NJ 07936-1080				
EXAMINER				
COVINGTON, RAYMOND K				
ART UNIT		PAPER NUMBER		
1625				
MAIL DATE		DELIVERY MODE		
06/18/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,258

Applicant(s)

WASSERSCHIED ET AL.

Examiner

Raymond Covington

Art Unit

1625

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date 1/10/06, 8/5/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6849774 and/or US 7153974.

US 6849774 teach an ionic mixture comprising a Lewis acid and a triflate of the type recited in the claims. See the summary text and the detailed description. Likewise US 7153974 teach an analogous mixture of Lewis acid, ammonium triflate. See the Brief Summary. In view of the art as a whole the claimed invention would have been obvious to one of ordinary skill in the art.

Claims 1-9, 12, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/072260

WO 02/072260 teach an ionic liquid-Lewis acid mixture analogous to that recited in the claims by the addition of over 50 mol% of the Lewis acid. WO 02/072260 states (p. 5, I. 21 to p. 6, I. 8) "in Friedel-Crafts acylation reactions the "catalyst" is usually a stoichiometric reagent. However, catalyst loading can now be lower; as low as 1 mol % metal bis-triflimide can give rise to quantitative yields in Friedel-Crafts acylation reactions. The compounds of the present invention will catalyze chemical reactions in concentrations within the range 0.0000001 to 1000 mol %, preferably within the range of 0.1 to 20 mol % and more preferably within the range of

0.5 to 5 mol %. This reduces catalyst waste". Thus WO 02/072260 already suggests the use of stoichiometric or superstoichiometric concentrations of Lewis acid, but its preferred embodiments employ smaller concentrations, apparently in the interests of reducing waste. WO 02/072260 also suggests a way of minimizing catalyst waste, see e.g. example 6, where it is stated "The ionic liquid/zinc chloride catalyst system could be used in further reactions, with similar activity". Thus one of ordinary skill would, in light of the teachings of WO 02/072260, know that it was possible to use higher concentrations of catalyst in an ionic liquid, and that this system could be recycled after use. Thus claims 1-12 are obvious over WO 02/072260.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Covington whose telephone number is (571) 272-0681. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres at telephone number (571) 272-0867.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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/R. C./
Examiner, Art Unit 1625

/Janet L. Andres/
Supervisory Patent Examiner, Art Unit
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